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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,286	09/19/2003	John Zagaja	DSC-02023C	2285

31661 7590 05/25/2004

PROTON ENERGY SYSTEM  
10 TECHNOLOGY DRIVE  
WALLINGFORD, CT 06492

EXAMINER
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ALI, HYDER

ART UNIT	PAPER NUMBER
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3747

DATE MAILED: 05/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/605,286

Applicant(s)

ZAGAJA ET AL.

Examiner

HYDER ALI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-7 is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-13 and 16-28 is/are rejected.
- 7) ☒ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/19/03.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

**DETAILED ACTION*****Inventorship***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

***Drawings***

The drawings are objected to because figure 1 does not show reference numerals 100,116,120,114,110,118, and 112 as described on page 3 of present specification. Corrected drawings are required in reply to the Office action to avoid abandonment of the application.

***Claim Rejections - 35 USC § 112***

Claims 11 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Regarding claims 11 and 23, the phrase "gas is air" is unclear; therefore it renders the claim indefinite. To make it clear the phrase should be "gas is exhaust and air".

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4 and 21-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1,13,14 and 45-52 of U.S. Patent No. 6,659,049. Although the conflicting claims are not identical, they are not patentably distinct from each other because

(i) elements of claim 1 of present invention is equivalent to elements of patent claim 1.

(ii) elements of claim 2 of present invention is equivalent to elements of patent claim 1.

(iii) elements of claim 3 of present invention is equivalent to elements of patent claim 13.

(iv) elements of claim 4 of present invention is equivalent to elements of patent claim 14.

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(v) elements of claim 21 of present invention is equivalent to elements of patent claim 45.

(vi) elements of claim 22 of present invention is equivalent to elements of patent claim 46.

(vii) elements of claim 23 of present invention is equivalent to elements of patent claim 47.

(viii) elements of claim 24 of present invention is equivalent to elements of patent claim 48.

(ix) elements of claim 25 of present invention is equivalent to elements of patent claim 49.

(x) elements of claim 26 of present invention is equivalent to elements of patent claim 50.

(xi) elements of claim 27 of present invention is equivalent to elements of patent claim 51.

(xii) elements of claim 28 of present invention is equivalent to elements of patent claim 52.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Laumann et al (4,112,875). Laumann et al discloses a system for generating hydrogen for use with an internal combustion engine, the system comprising: a means for removing a portion of an exhaust gas (62); a means (64) for condensating water from a gas (62); a means (68) for storing said condensated water, said storage means coupled to said condensating means (64); a means for electrolyzing (26) said stored condensated water; and a means for storing (30) said hydrogen gas.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2 and 16-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lookholder (6,314,732) in view of Wetch et al (3,647,394). Lookholder discloses a system for generating hydrogen from an exhaust stream from an internal combustion engine, the system comprising: a condenser (68) in fluid communication with exhaust stream (63), said condenser extracting water from said exhaust stream; a fluid reservoir (22) for storing said water, said reservoir in fluid communication with said condenser and said electrolyzer; a polisher (72) in fluid communication with said reservoir and said electrolyzer and, an electrolyzer (19) in fluid communication with said condenser, said electrolyzer producing hydrogen gas. Lockholder does not disclose a venturi and ambient air inlet. However, Wetch et al discloses a venturi (23) and ambient air inlet

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(25). It would have been obvious to a person having ordinary skill in this art to modify Lockholder by employing venturi and ambient air inlet in order to extract water from ambient air and to generate pressure in exhaust pipe.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lockholder (6,314,732) in view of Wetch et al (3,647,394) as applied to claim 1 above, and further in view of Andrews et al (6,427,639). Andrews et al disclose a proton exchange membrane electrolyzer (50). It would have been obvious to a person having ordinary skill in this art to further modify Lockholder by employing proton exchange membrane electrolyzer in order to replace electrolyzer.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lockholder (6,314,732) in view of Wetch et al (3,647,394) as applied to claim 1 above, and further in view of Szonntag (4,415,278). Szonntag disclose a thermo-electric cooler. It would have been obvious to a person having ordinary skill in this art to further modify Lockholder by employing thermo-electric cooler in order to condensate water from a gas.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laumann et al (4,112,875) in view of Szonntag (4,415,278). Szonntag disclose a thermo-electric cooler. It would have been obvious to a person having ordinary skill in this art to modify Laumann et al by employing thermo-electric cooler in order to condensate water from a gas.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laumann et al (4,112,875) in view of Andrews et al (6,427,639). Andrews et al disclose

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a proton exchange membrane electrolyzer (50). It would have been obvious to a person having ordinary skill in this art to modify Laumann et al by employing proton exchange membrane electrolyzer in order to replace electrolyzer.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laumann et al (4,112,875) in view of Wetch et al (3,647,394). Wetch et al discloses a gas inlet means including an ambient air inlet (25) and an exhaust gas inlet (19). It would have been obvious to a person having ordinary skill in this art to modify Laumann et al by employing gas inlet means in order to extract water from exhaust and air.

#### ***Allowable Subject Matter***

Claims 5-7 are allowed.

Claims 14 and 15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference by Nohira et al discloses exhaust emission control device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HYDER ALI whose telephone number is (703) 308-3949. The examiner can normally be reached on M-F (8:00-5:00).



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HENRY YUEN can be reached on (703) 308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hyder A.

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*Tony M. Argenbright*  
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Art Unit 3747